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CURRENT-BASED DEFIBRILLATOR-MONITOR REMA - 21

In this project we have invented defibrillator-monitor which provides the highest medical efficiency of defibrillation, according to the standards of the requirements of American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science (2010).



www.rema.com.ua

TECHNICAL DATA

Current Based Biphasic Defibrillator-Monitor REMA - 21

Equipped with ability to select defibrillation dose effect in amperes (technology Current-Based).

Stability of the selected current dose pulse reduces the number of ineffective attempts at defibrillation and cardioversion at energies less than 200 J discharge (40. resistance).

The use of innovative technologies and sustainable design provided the opportunity to implement the recommendations "2010 AMERICAN HEART ASSOCIATION GUIDELINES FOR CARDIOPULMONARY RESUSCITATION AND EMERGENCY CARDIOVASCULAR CARE SCIENCE

Part 6: Electrical Therapies» in parts «Current-Based Defibrillation» and «Electrode size».

General

Modes of operation

AED mode, manual mode, asynchronous and synchronous defibrillation per paddles or self-adhesive electrodes, cardioversion mode, pacemaker mode, service mode

Defibrillator Module

Manual and cardioversion mode

Impulse shape
Energy levels

Biphasic, Current Based
6J/6A, 11J/8A, 22J/11A, 45J/16A, 65J/20A, 100J/25A, 150J/32A, 200J/40A, (360J/40A. optional)

Charge time
Cardioversion

<6s for 360J
Manual activation of the cardioversion via the SYNC button defibrillation via paddles as well as self-adhesive electrodes

AED mode

Electrodes type
Impulse type

disposable
biphasic current based with patient's impedance compensation

Monitor module

Archive
Events archive
Alarms for all parameters

6h
500

ECG module

Leads
CMRR ratio
Frequency range:
Diagnostic
Monitoring
Paddles
Sensitivity
HR range
QRS signaling

One channel
>100 dB
0.05 to 100Hz
0.5 to 40Hz
1 to 25Hz
2.5 – 20 mm/mV
15-300 bpm
acoustic and optical
Input protected against defibrillator and high frequency disturbance

Pacer module

Impulse shape
Mode
Pacing rate

monophasic
on demand and fixed-rate
30 to 180 1/min

Monitor

Data management

TFT-LCD colour, 480 x 272 pixels
Archive defibrillation actions at internal memory storage with the ability to output reports to PC
Wi-fi / 3G (optional)

Transmission

Power supply

Testing

Weight

AC power 220V, 12V (optional)
Rechargeable battery

Programmable self-test of the device with a recording time and test results and voice message about the results of the last self-test when you turn on power.

3,5 kg, size 246x270x83 mm

According with IEC 60601-2-4
International standard ISO 13485

THE ELABORATION OF HIGH EFFECTIVE DEVICE

The most important fact defibrillation of heart is electrical current which passes through the myocardium of the heart. We have decided to invent the new generation of this device.



Remote diagnostic service

Device will have remote diagnostic service to manage different parameters of device and diagnosis status of this device.

Device has few protections mode: self-test mode, block mode if wrong dose is selected.



Quasi-sinusoidal biphasic pulse

Use quasi-sinusoidal biphasic pulse allows the patient to survive on the energy of no more than 200 Joules without damaging the patient's heart, and ensures the effectiveness of treatment for shock and chronic disorders of heart rhythm at no less than 90-95%.



Mode

Device has few modes: adults mode, children's mode and AED modes (Automatic External Defibrillation).



Memory

Internal memory of the device has enough capability to keep voice (video) files which can be used for operator navigation or call's communication.